

# AZZURRO - ENERGY STORAGE INVERTER

3000SP



The storage solution **Inverter ZCS Azzurro** is ideal to achieve optimum energy independence in the residential sector. With a rated power of 3 kW and a storage capacity of up to 20 kWh, it suits all types of requirements in new systems.

In addition, thanks to the AC connection, Azzurro is compatible with any type of technology (solar, wind, etc.) and with any type of inverter; it is therefore the ideal solution for updates and the optimisation of existing systems.



## SIMPLE AND RELIABLE



- Energy exchange directly in AC, with no interface systems or external control required.
- LCD display for local monitoring
- Remote monitoring system via APP to view consumptions, PV production, energy stored and exchange with the grid

## SIMPLE INSTALLATION



- Compatible with all existing inverters already connected to the grid
- No interventions required on the existing electrical system, thanks to the use of a split core current sensor

## FLEXIBLE DISCHARGE SOLUTION



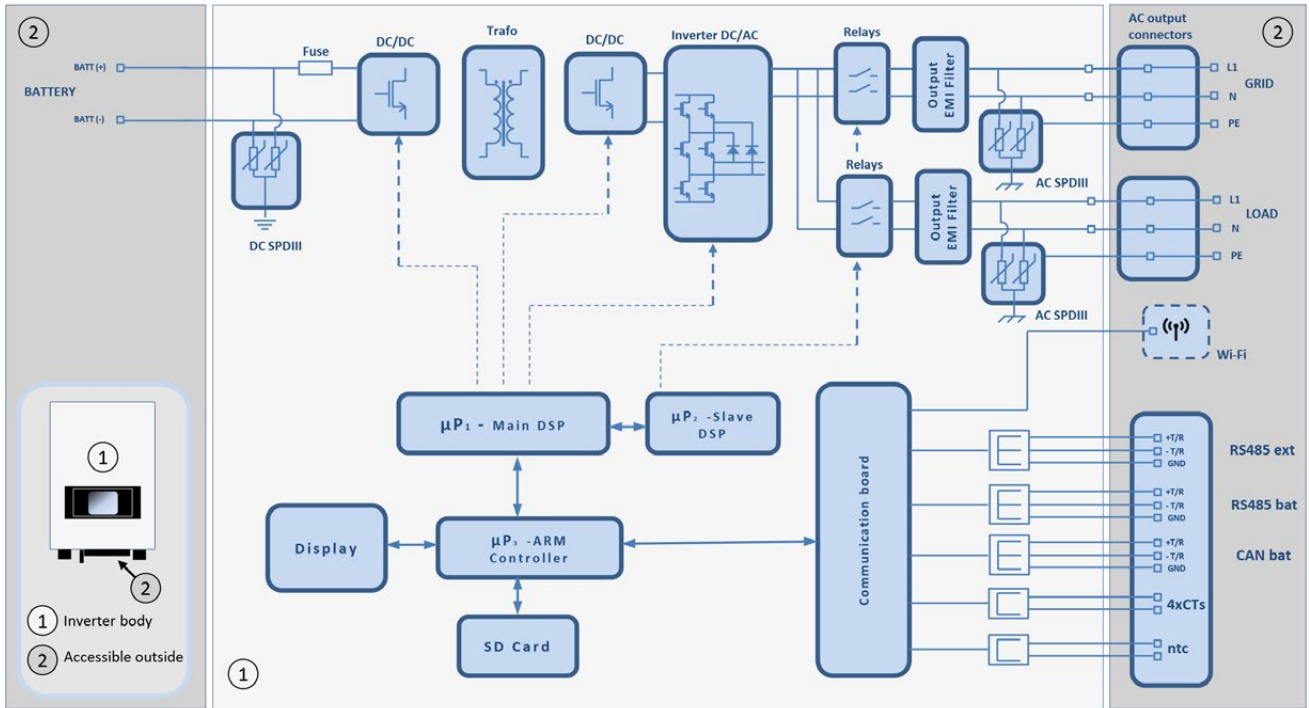
- Flexible management of charging/discharging in accordance with local regulations
- Maximisation of self-consumption of up to above 80%
- Suitable for installation on single-phase and three-phase systems alike.
- Unit compatible with lithium batteries as well as other 48V technologies (lead, gel, salt water, etc.)

## FUNCTIONS WHEN DISCONNECTED FROM THE GRID

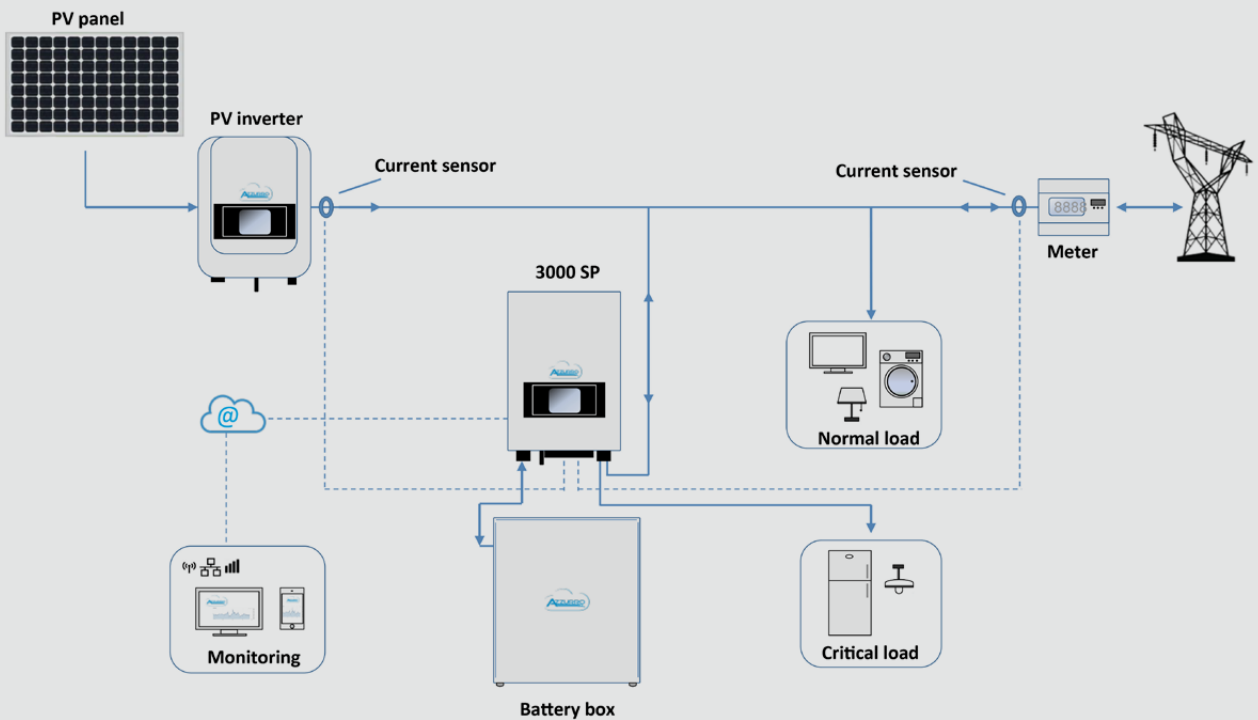


- Stand Alone support mode guarantees continuity of operation during power black-outs

# FLOW CHART



# ACCUMULATION SHEET



## TECHNICAL SPECIFICATIONS - 3000SP

| <b>AC Output</b>                               |  |
|--|--|
| Rated power                                    | 3kVA   |
| Peak power                                     | 1.5*Pnom, 10S: 1.2*Pnom, 30S   |
| Operating voltage range                        | 180-270V   |
| Frequency range                                | 44~55Hz / 54~66Hz  |
| Rated Voltage                                  | 230V   |
| Harmonic Distortion (THD)                      | <3%  |
| Power factor                                   | 1(Adjustable +/- 0.8)  |
| Type of mains connection                       | Single phase   |
| Max AC charge/discharge current                | 13A  |
| <b>Battery Technical Data</b>                  |  |
| Compatible battery type                        | Lithium Ion / Lead / Gel / Salt Water etc.   |
| Rated Voltage                                  | 48V  |
| Admitted voltage range                         | 42-58V   |
| Admitted Battery capacity                      | 50-200Ah   |
| Permitted accumulation capacity *              | 2.4-9.6kWh   |
| Admitted temperature range **                  | -10°C/50°C   |
| Nominal charge current                         | 25A for each battery * present   |
| Charging current range                         | 0-60A (programmable)   |
| Rated discharge current                        | 25A for each battery * present   |
| Maximum discharge current                      | 60A  |
| Maximum number batteries connected in parallel | 8  |
| Recommended discharge depth                    | 0-90% lithium*, 0-50% lead   |
| Type of protection from DC                     | fuse   |
| <b>System parameters</b>                       |  |
| Maximum charge efficiency (AC-> DC)            | 94,1%  |
| Maximum discharge efficiency (DC-> AC)         | 94.5%  |
| Consumption in standby                         | <5W  |
| Topology                                       | High frequency isolation transformer   |
| Environmental protection rating (inverter)     | IP65   |
| Safety rating                                  | Anti islanding, RCMU, Ground fault monitoring                                      |
| Certifications                                 | AS4777,VDE0126-1-1,G83/2,c10/11,RD1699,UTEC15-712-1,EN50438,VDE-AR-N4105, CEI 0-21 |
| Communication                                  | Wi,RS485,CAN2.0, micro SD card   |
| <b>Environment</b>                             |  |
| Protection rating                              | Class I  |
| Ambient temperature range ***                  | -25°C...+60°C (above 45°C Derating)  |
| Admitted relative humidity range               | 0...95% non-condensing   |
| Maximum operating altitude                     | 2000m  |
| Current sensor for connection                  | external   |
| <b>General Data</b>                            |  |
| Noise level                                    | <25db@1m   |
| Weight   | 16kg   |
| Cooling  | Natural convection   |
| Dimensions                                     | 532*360*173mm  |
| Display  | LCD display  |
| <b>EPS Emergency Power Supply</b>              |  |
| Power supplied in EPS ****                     | 3000VA   |
| Voltage and Frequency generated in EPS         | 230V, 50/60Hz  |
| Current supplied in EPS                        | 13A  |
| Total harmonic distortion                      | <3%  |

\*US2000B PLUS

\*\*standard value for lithium batteries; maximum operation between +10 ° C / +40 ° C

\*\*\* referred to the inverter only

\*\*\*\* the power delivered in EPS depends on the type and capacity of the batteries



**AS4777 G83/2 G59/3**

CE, CEI 0-21, CQC, IEC, VDE-AR-N4105/VDE-0126, EMC, C10/11, EN50438, RD1669